

REMARKS

The final Office action mailed on May 21, 2007, has been carefully reviewed.

The Examiner is thanked by the Applicant for indicating that claims 23 and 25 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claim. To this end, claim 22 has been amended to include the subject matter of claim 23. Claim 23 has been cancelled.

Furthermore, new independent claim 44 represents the combined subject matter of claim 22 and claim 25. Claim 25 has been cancelled.

Accordingly, it is believed that claims 22 and 44 are patentable over the prior art.

The rejection of claims 22 and 24 under 35 U.S.C. 103(a) as being unpatentable over Jeffrey (US 5,957,897; hereinafter "Jeffrey '897") in view of Pearson et al. (US 5,658,259) is traversed in part and obviated in part by appropriate amendment.

The subject matter of claims 22 and 24 has been combined in new claim 43.

The Jeffrey '897 and Pearson et al. references, taken alone or in combination, do not disclose or suggest the invention of claim 43.

Regarding the primary reference to Jeffrey '897, the Examiner's attention is respectfully directed to column 6, lines 12 to 24 and column 7, lines 7 to 19 and lines 26 to 33 as well as figures 1 to 4, of the patent. As will be seen, triggering ring 160 is located around the outside of cartridge 125. The piston 130 is pushed down into the cartridge by the connected hollow piston rod 132 to express the contents of the cartridge 125 through the needle 120.

According to Jeffrey '897, force is applied to deflectable arms 137 at the end of the piston rod 132 by a piston actuator 145 under the action of spring 141. The purpose of the triggering ring 160 is to ensure inward deflection of arms 137 just before they reach the end of the cartridge. In this respect, the material of the cartridge cannot be relied upon for failsafe inward leverage on the deflectable arms 137, and it is essential that the arms are deflected inwards in order to release the end of the piston rod from piston actuator 145. The result is that the spring 123 in the front end of the applicator 110 is able to retract the piston 130 along with the needle 120 by forcing part of the piston rod 132 and the part of the cartridge 125 into the hollow space of the actuator, as shown in Figs. 3 and 4 of Jeffrey '897.

Coming now to the present invention, it is clear from the arrangement shown in Figs. 6A to 6D that piston rod 531, which is solid in the illustrated version, also has splayed arms 531E at its end remote from the piston 511, and these splayed arms 531E are engaged by a force transmitting actuator 532 for expressing the contents from the cartridge 510. However, in Applicant's invention, collar 533, which is superficially similar to the triggering ring 160 of Jeffrey '897, is located directly around the piston rod 531 inside the cartridge 510. Moreover, this collar 533 is acted upon by the deformable piston 511, when it is deformed at the position illustrated in Fig. 6C, such that the collar 533 is moved to an extent sufficient to inwardly deflect the arms 531E to thereby release them for retraction back into the hollow space in the actuator 532.

Thus, it is clear that neither Jeffrey '897 nor Pearson disclose or suggest a hollow needle applicator in which a piston rod has driven extension parts which co-operate with the force transmitting part or parts of the actuator and are deflectable towards each other upon release from said force transmitting part or parts, and the triggering means comprises a collar slidable about the piston rod to deflect the extension parts. Notably, in Jeffrey '897, the triggering ring 160 is static and lies outside the cartridge.

Furthermore, in Jeffrey '897, the piston is not deformed into the end of the cartridge.

In view of the above amendments and remarks, it is submitted that the Jeffrey and Pearson et al. references, taken alone or in combination with each other, do not disclose or suggest each and every element of the invention of claim 43. Accordingly, the Applicant urges favourable reconsideration and withdrawal of the rejection under 35 U.S.C. 103(a), as it may apply to claim 43.

The objection to the drawings is obviated by appropriate amendment. A replacement drawings sheet for Figs. 6A to 6D is attached. Reference numeral 512S in FIG. 6B has been changed to 510S. While there is no *specific* mention of reference numeral 510S in the specification, it is clear that 510S is analogous to part 110S, referred to on page 7, line 26, as being an abutment shoulder of the cartridge 110, as shown in Fig. 3B. As noted on page 12, lines 20-24 of the description, parts shown in Figs. 6A to 6D have reference numerals corresponding to those in Figs. 1-4, but advanced by 400.

Accordingly, favourable reconsideration of the objection to the drawings is respectfully requested. No new matter has been added.

It is believed that this application is now in condition for allowance. If any final points remain that can be

clarified by telephone, Examiner Mehta is respectfully encouraged to contact Applicant's attorney at the number indicated below.

Respectfully submitted,

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